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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,501	06/24/2003	Masayoshi Shinohara	42479.7900	2201

7590 06/25/2004

Attention: Joseph W. Price, Esq.
SNELL & WILMER L.L.P.
Suite 1200
1920 Main Street
Irvine, CA 92614-7230

EXAMINER

CYGAN, MICHAEL T

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 06/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,501

Applicant(s)

SHINOHARA ET AL. *AX*

Examiner

Michael Cygan

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) 22-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 13, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in the reply filed on 01 June 2004 is acknowledged.
2. Newly submitted claims 22-25 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claims 22-24 do not include the limitation of a fluorine resin filter tape as explicitly mentioned in the restriction as being the subject matter of claim 1. Furthermore, claims 22-25 are directed to a control unit which is not part of the subject matter of the elected group. Since claims 22-24 can be used with other media than a fluorine resin filter tape, and Group 1 can be used without a control unit for correction of background radiation, the inventions are thus shown to be distinct. Claim 22 acts as an evidence claim showing the patentable distinctness of Group I and claim 25. Therefore, Group I is shown to be distinct from new claims 22-25.
3. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 22-25 are

withdrawn from consideration as being directed to a non-elected invention.

See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wedding (US 5,317,930) in view of Millipore ("PTFE Membrane Filters", May 2001). Wedding teaches a particulate measuring apparatus which collects particles by drawing a sample gas through a fluorine resin filter membrane in the form of a continuous tape (column 11 lines 17 through column 12 line 20), measuring the pressure drop through the filter to determine particulate loading, and measuring particulate concentration through beta particle absorption; see abstract; column 5 line 28 through column 6 line 29; column 9 lines 45-55; column 10 lines 15-18 and Figure 5. The membrane is supported on a foraminous screen [118] in which can inherently be found at least four holes arranged in approximately circular symmetry; see Figure 2 and column 5 lines 51-53.

Wedding teaches the claimed invention except for a reinforcing layer made of polyethylene on one side of the tape. Millipore teaches the use of

fluorine resin membrane filters having polyethylene support bonded to one side of the filter for air monitoring and filtering gases; see page 1. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use fluorine resin membrane filters having polyethylene support bonded to one side of the filter as taught by Millipore in the invention taught by Wedding to form the membrane filter, since Millipore teaches the advantage of easier handling and broad chemical compatibility.

With respect to claim 9, while Wedding is silent as to the screen hole shape, it is notoriously well known in the screen art for screens to possess a honeycomb arrangement, and it would have been obvious to one having ordinary skill in the art at the time the invention was made to use such honeycomb screens for the advantage of applying well characterized materials having predictable properties.

5. Claims 12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wedding (US 5,317,930) in view of Millipore ("PTFE Membrane Filters", May 2001) as applied to claim 1, further in view of Barringer (US 4,192,176). The claimed invention is considered to be taught except for the use of impact and cyclone filters removably attached. Barringer teaches the use of impact [13] and cyclone [40] filters removably attached to a particulate sampling assembly [11]; see column 2 line 46 through column 3 line 56. It would have been obvious to one having ordinary

skill in the art at the time the invention was made to use impact and cyclone filters as taught by Barringer in the invention taught by Wedding to discard unwanted gas/material, since Barringer teaches that such gathers only particles of the size desired to be sampled and analyzed.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wedding (US 5,317,930) in view of Millipore ("PTFE Membrane Filters", May 2001) as applied to claim 1, further in view of Johnson (US 4,866,277). The claimed invention is considered to be taught except for the use of error compensation due to naturally occurring radiation. Johnson teaches that background compensation, although not a perfect technique, is an important technique in radiation measurement of a material passing over a conveyor-type detection device when no special means of preventing background sources from causing errors are present; see column 1 line 11 through column 2 line 27. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use error compensation due to naturally occurring radiation as taught by Johnson in the invention taught by Wedding to analyze sensor results, since such would reduce errors as taught by Johnson.

Allowable Subject Matter

7. Claims 10, 11, 13, 16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, since the prior art neither discloses nor fairly teaches the limitations positively recited in the claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schrader (US 4,941,742) teaches a particulate measuring apparatus which collects particles by drawing a sample gas past a filter membrane in the form of either a circular disc or a continuous tape; see Figures 1, 5, and 7, and column 2 lines 14-24. Lilienfeld (US 3,711,707) discloses beta adsorption of collected particles on a membrane. Vandrish (US 4,464,574), Lesage (US 4,961,916), Lilienfeld (US 5,349,844), and Bradley (GB 2,146,430 A) disclose filter sampling.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cygan whose telephone number is (571) 272-2175. The examiner can normally be reached on 8:30-6 M-Th, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Michael Cygan', with a large, stylized loop at the end.

Michael Cygan
Primary Examiner
Art Unit 2855